

FIGURE 1

CGGACGCGTGGGACCCATACTTGCTGGTCTGATCCATGCACAAGGGGGGTGCTAGGCCTC
TGTGCCCGGGCTTGGATTGGTGGATGGCAGCTCCGGGATGACCCGCCGGGACCCGCT
CGCAAATAAGGTGGCCCTGGTAACGCCCTCACCGACGGGATCGGCTCGCATCGCCGGC
GTTTGGCCCAGGACGGGCCCCATGTGGTCGTCAAGGCCGGAAAGCAGCAGAATGTGGACAG
GCGGTGGCCACGCTGCACGGGGAGGGCTGAGCGTGACGGGACCGTGTGCCATGTGGGAA
GGCGGAGGACGGGAGGGCTGGTGGCACGGCTGTGAAGCTTCATGGAGGTATCGATATCC
TAGTCTCCAATGCTGCTCAACCCTTCTTGGAAAGCATAATGGATGTCACTGAGGAGGTG
TGGGACAAGACTCTGGACATTAATGTGAAGGCCAACCCCTGATGACAAAGGCAGTGGTGC
AGAAAATGGAGAACGAGGAGGCGCTCAGTGGTATCGTGTCTTCATAGCAGCCTTCAGTC
CATCTCCTGGCTTCAGTCCTTACAATGTCAGTAAAACAGCCTTGTGGCCTGACCAAGACC
CTGGCCATAGAGCTGGCCCCAAGGAACATTAGGGTAACTGCCTAGCACCTGGACTTATCAA
GACTAGCTTCAGCAGGATGCTCTGGATGGACAAGGAAAAAGAGGAAAGCATGAAAGAACCC
TGCGGATAAGAAGGTTAGGCGAGCCAGAGGATTGTGCTGGCATCGTGTCTTCCTGTCT
GAAGATGCCAGCTACATCACTGGGAAACAGTGGTGGTGGGGAGGAACCCCGTCCCGCCT
CTGAGGACGGGAGACAGCCCACAGGCCAGAGTGGGCTCTAGCTCCTGGTGTGCTTCTGC
ATTCAACCCACTGGCCTTCCCACCTCTGCTCACCTTACTGTTCACCTCATCAAATCAGTTCT
GCCCTGTGAAAAGATCCAGCCTTCCCTGCCGTCAAGGTGGCTTACTCGGGATTCTGCT
GTTGTTGTGGCTTGGTAAAGGCCTCCCTGAGAACACAGGACAGGCCGTGTGACAAGGCT
GAGTCTACCTGGCAAAGACCAAGATTTTTCTGGCCACTGGTGAATCTGAGGGGTGA
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FIGURE 2

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></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA35672
><subunit 1 of 1, 278 aa, 1 stop
><MW: 29537, pI: 8.97, NX(S/T): 1
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SRKQQNVDQAVATLQGEGLSQLTVCHVGKAEDRERLVATAVKLHGGIDILVSNAAVNPFFG
SIMDVTEEVWDKTLDINVKAPALMTKAVVPEMEKRGGGSVVIVSSIAAFSPSPGFSPYNVSK
TALLGLTKTLAIELAPRNIRVNCLAPGLIKTSFSRMLWMDKEEESMKETLRIRRGEPEDC
AGIVSFLCSEDASYITGETVVVGGGTPSRL
```

Important features of the protein:

Signal peptide:

amino acids 1-15

N-glycosylation site.

amino acids 183-186

N-myristoylation sites.

amino acids 43-48, 80-85, 191-196, 213-218, 272-277

Microbodies C-terminal targeting signal.

amino acids 276-278

FIGURE 3

GCGCCCTGAGCTCCGCCCTCGGGCCCGATAGCGGCATCGAGAGCGCCTCGTCGAGGACCAAGCGGGC
CAGGGGGCCGGCGGGGAAGAGGAGATGAGGGGGCGCAGCAGCTGCTGACCCCTGAGAACCCAGGTGGC
CGCCGCTGAGGAGGAAACCGAGACTTCTGCGCTGAGGAGCAGCATGGAGCTAACAAACTGCG
AGAGCGACGGCTGCGTGAAGCAGGGAGAGTGGTAAGCTGCGCTCGGGCTCGGGTTAGACTGGTGGCG
CCAGGCTGGGGGGCTCGGGCTCGGAATGAGCTCGCTCCGGGCTCTTGTGCTCACCTACATAC
AGCCCCCTGGGGGTGCCCACGCCATGTGCTGGCATGGTGCCTGCGCTGCGCTGCGCTGGAGATG
AAGTTGGCTCTGAGCAGAGGGAGACCGAGTGACAATCGCAGGGAGGCTGGAGCTGAGCTGGTACT
GAGGTGAACAGGCTGGGAAGTGGCTTCAGCTGCTTCAGAGGAGGAAGAGGAGGAGGAGGAGCCGCC
CAGCGGACCTAACCTGGCAGAGAACCTAGGATCAGCAACTCGAGTCAGAGGGCGGGGACGCCAG
GGAGTCTGCCAGAGAGGAAGGGCCAGAGCTTGAGGAGTTGGATGAGCATTCCAGGGTCC
AGAGCAGTTGGTGGAGCAAGGGCCAGGTAGGCCCCAGGCTGGAGCTCCCGCAGAGCTTCAGAGTG
GGCGCTGGCCACAGGGCCAGAGAACATGGGGAGCTGGCTATCAACATCCGCATGAAGGGAGGAGCTTA
TTGGCAGACTGGTCCACAGGAAAGCAGCTCAGGGCTGAACCCGCACACAGCAGCTATCGG
GAGCTGGAGCAGGAGGAGCAGGAGCTGGAGCTGAGTGAAGGCCAGAGGAGCTGCGGGAGCT
CGAGGGCAAGAGGCTCCAGGATGCTGGCAGGGCTCTGGCTCCAGGAGTCCCGCAGGAGGGTCTGG
CGGGCCAGAGGAGCTGGAGCTGAGGAGAAGAGCAGGCTAGGAGCAGGCTGGAGCTGGTCACTGCG
GCCAGAGTGAAGAGCAGCTCAGGGAGCTGAGCAGGACCTGGCAGCTCATCGCCAGCACGGGACA
GCTGCAGAGGCGCTTCGAGGAGACGGAGCAGGAGCAGAACGGCCCTGGAGCAGAAATGAGCAAGGCC
AGCACCGCGTCAAGGAGCTGGAGCTGAAGCATGAGCAACAGCAGAACAGTCTGAAGATAAGGAA
GAGATCCGGCTTCAGAGGAAGGGCAGTGGCAGCACGGCTCTGTGTCAGCCTGGAAACAGCA
GCAGAAAGATTGAGGAGCAGAGAACAGTGGCTGGACCAGGAGATGGAGAAGGTGTCAGCAGCGGGGG
CCTGGAGGAGCTGGGGAGGAGCTCCACAAGCGGGAGGACATCTGGCCAAGAAGGAGGCCATGATG
CAGGAGAAGACGGGGCTGGAGAGCAGGCTGGAGATCCAGGCCAGGGCTCAACAGGAGCATCTGTGCG
AGTGTCCAGGGCGCTGGAGCACCTGGAGAAGAGCTGGCAGGAGGAGCTGCTGTCTCCCCAGGGAGGAGC
GCGCCAGAGCCAGCAGCAGATCCGCGGGAGATCGACAGCCTGCGCCAGGAGAAGGACTCGTGTCTC
AAGCAGCCCTGGAGATCGAGGAAAGCTGAGGGAGGAGCTGCTGTCTCCCCAGGGAGGAGCAGGAC
GCTGTCTGGAGATGGGGCTGGGAGGAGCTGGCCCTGGAGGAGCAGGCTGGAGATGGGGAGGAGC
AGAGGGCTGGTAGCTGGCTGGAGGAGCTGGCCCTGGAGGAGCAGGCTGGAGATGGACCCAGCTGACC
CTGCAGCAGAAAGGAGCACGAGCAGAACATCAGCTGCTCTGAGCAGAGTCAGGAGCACCTCGTGA
AGGGTAGCAGACAGCAGGGAGGAGCTGAGGGCCCGATTCAAGCTCTGGAGAAGGAACCTGGCGTT
ACATGTGGATAAACACAGGAACAGAACAGCTGGGGCTGTGAACAGCTGTAGGGCCACAGCGGGGT
GGGGAGAAGAGGAGGAGCTGTGCTGGAGGGACAGACAGGCTCTGGAAATGAAGATGAGCTCCACCTGGC
ACCCGAGCTCTCTGGCTGCTCCCCCTCACTGAGGGGCCCGCACCCGGAGGAGACCGGGACT
TGGTCCACGCTCCGGTACCCCTGACCTGGAAACGCTCGAGCCTGTGTTGAGGAGCAGGGTCCCC
GAGGAACATGAGGAGCAGGGAGGGCTGAGGCCCCCTGGTGGGGGGGCTTCTGTGGGTGAGGGCAGG
CTGGCCCTGGAACTTGGGGCTTGTCCAAGGCCCCGGCGGAACCTGCGAGGAGCAGGGGGATG
TTGATGTGGAAAAAACCCCTGTAAGCCCTGGGGCAGACCCCTGCTTGGAGGGAGACTCCGAGCCT
GCTGAAAGGGAGGAGCTGCTGCTGTTCTGTGAAGGGAGCTTACCCACCCATAATCCAGG
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AACAAATAATGCAAATTCCACCAACTTCTCATGAAGCTGGTACCAATTGGCCCTTGTG
TCTTGCTGAACTCAGGACAATTCTGTTGAGCTGAGGCTAAATGGATGTGCTTGTAGTTAGGGTTG
GCCAAGAATCATCAGGAAAGGGTCGGTGGCAACCAAGGTTGGTTAAATGGTCTTATGTATAGGG
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FIGURE 4

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</usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA47465
<subunit 1 of 1, 830 aa, 1 stop
<MW: 95029, pI: 8.26, NX(S/T): 2
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HLRRNRISNCQRAGARPGSLPERKGPELCLEELDAAIPGSRAVGGSKARVQARQVPPATAS
EWRLAQAAQQKIRELAINIRMKEELIGELVRTGKAAQALNRQHSQRIRELEQEAEQVRAELSE
GQRQLRELEGKELQDAGERSRLQEFRRRVAAAQSQVQLKEKKQATERLVSLSAQSEKRLQE
LERNVQLMRQQQGQLQRRLREETEQKRRLEAEMSKRQHVRKELELKHEQQQKILKIKTEEIA
AFQRKRSGNSGNSVVSLEQQQKIEEQKKWLQEMEKVLQQRRALEELGEELHKRAILAKKE
ALMQEKTGLESKRLRSSQALNEDIVRVSSRLEHLEKELSEKSGQLRQGSAQSQQQIRGEIDS
LRQEKDSSLKQRLEIDGKLRQGSLLSPEEERTLFQLDEIAEALDAIEYKNEAITCRQRVLR
ASASLLSQCEMNLMALKSYLSSETRALLCKYFDKVVTLREEQHQQQIAFSELEMQLEEQQR
LVYWLEVALERQRLEMDRQLTLQQKEHEQNMQLLLQQSRDHLGEGLADSRRQYEARIQALEK
ELGRYMWINQELKQKLGGVNAVGHSGRGKRSRSLCSEGGRQAPGNEDELHLAPELLWSPLTEG
APRTTRETRDLVHAPLPLTWKRSSLCGEEQGSPEELRQREAAEPLVGRVLPVGEAGLPWNFG
PLSKPRRELRRASPGMIDVRKNPL
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Important features:

Leucine zipper pattern.

amino acids 557-579, 794-815

N-glycosylation sites.

amino acids 133-136, 383-386

Kinesin related protein Kif-4 Coiled-coil domain:

amino acids 231-672

FIGURE 5

ATTCTCCTAGAGCATTTGGAAGC**AT**GAGGCCACGTGCTGCATCTGGCTCTTGCTGCT
GGATAACAGTCTTCCTCCAGTGTCAAAGGAACTACAGACGCTCCCTGGCTCAGGA
CTGTGGCTGCCAGCGACACCCAGGTGTGGAACAGATCTACAACCCCTCAGAGCAGTG
CTGTTATGATGATGCCATTTATCCTAAAGGAGACCCGCGCTGGCTCCACCTGCACCT
TCTGGCCCTGCTTGGCTGCTGTCCCAGTCCTTGGCCCCAGCAGAAGTTCTGTG
AAGTTGAGGGTCTGGGTATGAGTCAGTGTCACTTATCTCCCATCTCCGGAGCTGTAC
CAGGAACAGGAGGCACGTCTGTACCC**A**AAAACCCAGGCTCCACTGGCAGACGGCAGAC
AAGGGGAGAAGAGACGAAGCAGCTGGACATCGGAGACTACAGTTGAACTTGGAGAGAAGCA
ACTTGACTTCAGAGGGATGGCTCAATGACATAGCTTGGAGAGGAGCCAGCTGGGATGGC
CAGACTTCAGGGGAAGAAATGCCCTCTGCTTCATCCCCTTCCAGCTCCCCCTCCGCTGAG
AGCCACTTTCATCGGAATAAAATCCCCCACATTACCATCT

FIGURE 6

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></usr/seqdb2/sst/DNA/Dnaseqs.full/ss.DNA57700
><subunit 1 of 1, 125 aa, 1 stop
><MW: 14198, pI: 9.01, NX(S/T): 1
MRPRCCILALVCWITVFLLQCSKGTTDAPVGSGLWLQPTPRCGNKIYNPSEQCCYDDAILS
LKETRRCGSTCTFWPCFELCCPESFGPQQKFLVKLRVLGMKSQCHLSPISRSCTRNRRHVLYP
```

Important features:

Signal sequence

amino acids 1-21

N-myristoylation sites.

amino acids 33-39, 70-76

FIGURE 7

CCCCACGCGTCCGCCAACCGTCCGGGTGCCACTCGCGCGCCGGCCGCTCCGGCTCTCT
TTTCCCTCCGACCGCAGCGCTGCCAGACATTCCGGCTGCCGGCTGGAGAGCTCCCCG
AACCCTCCGGAGAGGAGCGAGGGGGCGCCAGGGTGGCCCCGGGGCGCTTGGTCTCG
GAGAAGGGGAGGGCGAGGATGAGCGACTGAGGGCGACGGGACTGACGAGTT
GGGGCCGCACTACCGGAGCGTGAAGCGAGCGACTCCCCAGAGACGCCCTAGCCCG
GTGTGCGGCCAGGGAGCGCAGGGCTGGGCTGGTGTAGTGGTCCGCCAACGGGG
TCGCGGCCGCCAGGATGGCGCTGGCAACCGGGCCCGCCGCCGCTGCTACCCCTG
CGCCCGCTGCAGGCCGGCTCCGGCCCGCCCTGCGCTATGGACGGCGCTCCGGCTG
GCGGGCGCGCCGGCTGTGAATGCACTGCCCTCGGCCGCTCCCCGCCCGCC
GCCCGCCGGAGCTGGTAGGGGATGCCAGCTCCACTGCGATGGCAGTGGCGCCTCTCA
GTTCCCTCTGGTACCTGCTGCCATGGTGGCTCTGTGAGTCCGAGCATCCGCTGGAG
AAGCTGGCCCAGGCACCAAGAGCAGCCGGGAGGAGAAGCGTGAGCACGCCACTCGGGACGG
CCCGGGGGGGTGAAACGAGCTCGGGGCCGGAGGGAGGAGGGCGAGCGGGGGACT
GGAAGAGCAAGAGCGGCCGTGGCTGCCGGCGTGAGCGTGGAGCAAGCTGAAGCAGGCC
TGGGTCTCCCAAGGGCGGGGGCGCCAAGGCCGGGATCTGCAGGTCCGGCCCCGGGGACAC
CCCGCAGGGGAAGCCCTGGCCGAGCCGCCAGGACCGATTGGCCCGAAGTCCGCCCCA
CCCCCGAGCCACCCGAGGAGTACGTGACCCGACTACCGTGGCAAGGGCTGCGTGAG
AGCGGCTTGTACCGCATGGGAGAAGTTCGCGCCGGGCCCTCGGCTGCCGTGCT
GTGACCGAGGAGGGGCCGTGCGCGAGCCGAGTGGCCGAGGCTGCACCCGCGCTGCA
TCCACGTCACAGAGCCAGTGTGCTGCCGAGTGCAGGAGAGGAAGAAACTACTGCGAGTTC
CGGGGCAAGACCTATCAGACTTGGAGGAGTCGTGGTGTCTCCATGCGAGAGGTGCGCTG
TGAAGCCAACGGTGAGGTGCTATGCACAGTGTGAGCGTGTCCCCAGACGGAGTGTGGACC
CTGTGTACGGCCTGATCAGTGTGTCCTCATGCAAAATGGTCAAACGTGCTTGCAGAA
ACCGGGTGTACCCCTGCTGGCAGAGAAGTGAAGACTGACGAGTGCACCATATGCCACTGTAC
TTATGAGGAAGGCACATGGAGAATCGAGCGGCAGGCCATGTGACAGAGACATGAATGCA
AAATGTAGACGCTTCCAGAACACAAACTCTGACTTTCTAGAACATTTACTGATGTGAA
CATTCTAGATGACTCTGGAAACTACAGTCAGGAAAGAAGACTTTGATGAGGAATAATGGAAA
TTGGTGGTACTTTCTTCTTGATAACAGTTACTACAACAGAAGGAATGGATATATTC
AAAACATCAACAAGAATTGGGCAAAAATCTCTCAAATAAAATGTGCTATTTCACAG
TAAGTACACAAAAGTACACTATTATATCAAATGTATTCTATAATCCCTCATTAGAGAG
CTTATATAAGTGTTCATAGATGCAGATTAAAATGCTGTGTCACCGTCAACCGTCAAAAAAA
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FIGURE 8

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></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA68818
><subunit 1 of 1, 325 aa, 1 stop
><MW: 35296, pI: 5.37, NX(S/T): 0
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AAAQDAIGPELAPTPEPPEEYVYPDYRGKGCVDSEGFVYAIKEKFAPGPSACPCLCTEEGPL
CAQPECPRLIHPRCIHVDTSQCCPQCKERKNYCEFRGKTYQTLEEFVVSPCERCRCEANGEVL
CTVSACPQTECVDPVYEPDQCCPICKNGPNCFAAETAVIPAGREVKTDECTICHCTYEEGTWR
IERQAMCTRHECRQM
```

Important features of the protein:

Signal peptide:

amino acids 1-27

Transmembrane domain:

amino acids 11-30

Glycosaminoglycan attachment site.

amino acids 80-83

N-myristoylation sites.

amino acids 10-15, 102-107, 103-108

Cell attachment sequence.

amino acids 114-117

EGF-like domain cysteine pattern signature.

amino acids 176-187

FIGURE 9

CAGCCACAGACGGGTCATGAGCGCGTATTACTGCTGGCCCTCCTGGGTTCATCCTCCCAC
TGCCAGGAGTGCAGGCCTGCTTGCCAGTTGGGACAGTTCACTGAGCATGTGTGGAAGGTGTCC
GACCTACCCCGCAATGGACCCCTAAGAACACCAAGCTGCGACAGCGGCTTGGGTCAGGA
CACGTTGATGCTCAITGAGAGCGGCCAACAGTGAGGCTGGTCTCTCAAGGGCTGACCG
AGGCCAAGGACCAGGAGCCCCGCGTCAGTGAGCACGGGATGGGCCCCGCTCTCCCTGATC
TCCTACACCTTCGTGTGCCGCCAGGAGGACTTCTGCAACAACCTCGTTAACTCCCTCCCGCT
TTGGGCCCCACAGCCCCCAGCAGACCCAGGATCTTGAGGTGCCAGTCGCTTGTATGG
AAGGCTGTCCTGGAGGGGACAACAGAAGAGATCTGCCCAAGGGGACCACACACTGTTATGAT
GGCCTCCCTCAGGCTCAGGGAGGGAGGCATCTCTCCAATCTGAGAGTCCAGGGATGCATGCC
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GCTGAGCAGACTGTTGGGCTCAAATTCCCAGAAGACCCATCCACTCAGCCCCCTGGG
GTGCTTGTGGCCTCTATACCCACTCTGCTCTCGACCTGTGCAATAGTGCCAGCAGCAG
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GGCGCCACTCATTGTTATGATGGGTACATTCTCATCTCAGGAGGTGGCTGTCCACCAAAAT
GAGCATTCAAGGCTGCGTGGCCCAACCTTCCAGCTTGTGAAACCACACCAGAACAAATCG
GGATCTTCTCTGCGCGTGAGAACCGTGATGTGCGACCTCTGCCTCTCAGCATGAGGGAGGT
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CCATTCTGTCCATGAATCATCTTCCCCACACACAATCATTCAATCTACTCACCTAACAGCA
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GCTGCATGTATCTGATAATACAGACCCCTGTCCCTTCA

FIGURE 10

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PADPGSLRCPVCLSMEGCLEGTTEEICPKGTTTHCYDGLLRLRGGGIFSNLRVQGCMPPGCN
LLNGTQEIGPVGMTENCNRKDFLTCHRGTTIMTHGNLAQEPTDWITTSNTEMCEVGQVCQETL
LLIDVGLTSTLVGTVKGCGSTVGAQNSQKTTIHSAPPGVLVASYTHFCSSDLCNSASSSSVLLN
SLPPQAAPVPGDRQCPTCVQPLGTCSSGSPRMTCPRGATHCYDGYIHLSGGGLSTKMSIQGC
VAQPSSFLNNHTRQIGIFSAREKRDVQPPASQHEGGGAEGLESLTWGVGLALAPALWNGVVCPSC
```

Important features of the protein:

Signal peptide:

amino acids 1-15

Transmembrane domain:

amino acids 243-260

N-glycosylation sites.

amino acids 46-49, 189-192, 382-385

Glycosaminoglycan attachment sites.

amino acids 51-54, 359-362

N-myristoylation sites.

amino acids 54-59, 75-80, 141-146, 154-159, 168-173, 169-174,
198-203, 254-259, 261-266, 269-274, 284-289, 333-338, 347-352,
360-365, 361-366, 388-393, 408-413, 419-424

FIGURE 11

CGACG**A**TGCTACGCGGCCGGCTGCCCTCCGGACCTCCGTAGGCCCTGCCGCCGCTG
GCTGCCGCCGCTGCTCTCGCTTGCCTGCTCTCTTAGAGCCGAGGGACCCGGTGGC
CTCGTCGCTCAGCCCCATTTCGGCACCAAGACTCGCTACAGGGATGTCAACCCCGTCTAT
TGTCGGGCCCGAGGCTCGTGGCGGGACCTGAGCTGCTGGAGGGACCTGACCCCGTGT
CAGCTGGTGCCTCATTCGGCACGGCACCCGCTACCCCAAGCTCAAACAGATCGAAGCT
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GCAGCCGCCACCTGGGTGCAGCGCTGGCGACTGGCTTGTGTAACGCGGACTGGATGGAC
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GAGATTTTTGATCATGTTGAGATTAACTGAAGTAGAAAAAAATGCTACAGCTCTT
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TTCAATTGACCTGCAATTAAAGGTGTTAAATCTCCCTGGTGTGATGTTTTGAATAGATG
ATGCAAAGGTATTAGAATATTAAATGATCTGAAACAAATTTGGAAAAGAGGATATGGTAT
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FIGURE 12

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RDLGAALADWPLWYADWMGQLVEKGRQDMRQLALRLASLFPALFSRENYGRLRLITSSKHR
CMDSSAAFLQGLWQHYHPGLPPDVADMEFGPPTVNNDLMRFFDHCEKFLTEVEKNATALYH
VEAFKTGPEMQNILKKVAATLQVPVNDLNADLIQVAFFTSFDLAIKGVKSPWCDVFDIDDA
KVLEYLNDLKQYWKRGYGYTINSRSSCLTFQDIFQHLDKAVEQKQRSQPISSPVILQFGHAE
TLLPLLSLMGYFKDKEPLTAYNYKKQMRKFRSGLIVPYASNLIFVLYHCENAKTPKEQFRV
QMLLNEKVLPLAYSQETVSFYEDLKNHYKDILQSCQTSEECELARANSTSDEL
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Important features:

Signal sequence

amino acids 1-30

N-glycosylation sites.

amino acids 242-246, 481-485

N-myristoylation sites.

amino acids 107-113, 113-119, 117-123, 118-124, 128-134

Endoplasmic reticulum targeting sequence.

amino acids 484-489

FIGURE 13

GGGACTACAAGCCGCCGCCCTGCCGTGGCCCCCTCAGCACCCCTCGACATGGCGTGAGGCCGCCACCGCGAC
TCCGGCTCTGCCTCGCTGCCTGACTCTCTCTGCTGCTGCTTTCAGGGCTGCTGTATAGGGCTGTAATC
TCAAATCCACCAATCAACCCCACTGGTACAGGGAATTGAAAGTGTGAACTCTGCTCATTTAGGATTCCG
AGACAAGTGAACCCAGGATCAGTGGAAAGAAAATTCAAGATGAAACACCACATATGTTTTGACAAAAA
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CTGTGCAAGTGAAGCCAGTGAACCCCTGCTGCTGTAGAGTGTGAGGCTGCTGAGCTTACAGCTGGATCGAACACTGC
ACTGCGAGGAGACTGAGGCCACCCCGGCCCTACTACAGCTGGTATCGCAATGATGTCACACTGCCACGGATT
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TTCAACAGGAGCAGTCTGGCAGTACTACTGCAATTGCTTCAACTAGCAGCCAGGCTCAGCCAGGTTGAGGAGCAG
AGATGGAAGTCTATGACCTGAACATTGGCGGAATTATTGGGGGGTTCTGGTTCTGCTGTACTGGCCCTGA
TCACGTTGGCAGCTGCTGCTGATCACAGACTGGTACTCTCATCACAAATAACAGGATGGAGAAAGTTACAAGA
ACCCAGGAAACAGATGGAGGTTACATCAGCAGTACAGCAGGAGGCGACTTCAAGCAGCTGATCTGTTG
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GTAATAAGGGTGTGGCTTCAAGTGTGGTTCTGCTGAGGAAACCTCTGGTCCAAACAGGGTGTGAGGTTAAAGGAA
ACCTCTGCTCTAGGCTAAAGTCTGAAATTGACTGTTCTATGGGTTCTGTTTATTATTAAATT
TACATCTAAATTGCTAAGGATGTTTGATTATTGAAAGAAAATTCTTATTAACATGTAATATATTG
CATACATGTTAAATTAACCTTATTTTAAAAGGTTCAACTTAAGGTAAGAGTTCCAAGCTACTAGTGTAAAAT
TGGAAATATCAATAATTAAAGGATTTTACCAAGGAATTCTCATGAGTGTACTGTTCTTCT
CACACAGTTTACGGCTTITACAAAGGGAACTCATACTGCTCACACATCAGACCATAGTTGCTTAGGAACCTT
TAAAATTCAGTGGACTGAACTGTTGCAATCTGGCATCTCTCAAAGGAACCCCTCAGGTTGACTCTTGT
GCCCTTCTCTGGAGATCAGTGGAGCAGTGTGCTACCCAGGGGCCACCAAGAGCCTCAGATGACATACAGATG
CCAGTCAGCTCTGGGGTCTGCCAGGGCCCCCGCTAGCTACTGTCCTGCTGCTGCTGGAGGCC
GCCATCTTCTGGCTGGCACTGGAGGAACTGTGCTGCTGCTGCTGAGCTTACTACCTGCTGCTGCTG
TCTCAGGTGGGCACTGAGGGAACTGTGCTGCTGCTGCTGAGCTTCTGGCTCCAGGTTGGGCTCTG
TTTGGGTATGGATGGCTCACAAATAGGGCCCCAATGCTATTTTTTTAAAGTTGTTTAAATTGTT
AAAGATGCTTCAAGGCCAAAGGCAATTCAAGTGTCTGCAAGTAAATAACATTTTAAAAGAAAATGGAT
CCCACTGTTCTCTTGGCACAGGAAAGCACCAGAGGCCACAGGCTCTGCGATTTCAAAACACCATGAT
GGAGTGGCGGCCAGTCCAGCTTTAAAGAACGTCAGGTTGGAGCAGCAGGTTGAAAGGCCCTGGCGGGAGAAG
TGAACAGCCCTGAATCAAAGCAGTTTAAATTGACTTTAAATTTCATCCGGGGAGACACTGCTCCATT
TGTGGGGGGACATTAGGCAACATCACTCAGAACGGCTGTTCTCAAGAGCAGGTGTTCTCAGGCTCACATGCCATT
GCCGTGCTGGACTCAGGACTGAAAGTGTGTAAGAACAGGAGCTGCTGAGAAGGAGCCTCAGTGTGCTG
GAATGGCTCTACTCACCCTGTTCTTCACTGGCTTCAAGGCTCCAGTGTCTGGTTTTTAACTTTGACACGTTTTTT
AATTGCTACATGAGACTGTTGACTTTTTAGTTAGTATGTAACACTTCCCGAGGCCCTGGAGGGCA
GGAAATGCTCAGCAGTGGCTCAGTGTCTCTGGTCTGCGATGCCATCTGGATCTTAGCATGCAAGTTC
CTCTCATCATGTTGCACTGGGACCTTGGAGAGGGATGGCTCCACCTCAGGCTTGGGATTCTAGGCTCCAGGCTCT
TCTTGGTTGCTATGATGAGGGTAGGGCTATTGCCCCCTCTTCTATACCTTAAACCTTCTACACTGTT
TGGGAACGAGTGTGAAAAGTAGAGAGAAGTGAAGTAGACTGCTGCTATAACTGAGACTAGA
CGGAAAAGGAAACTCTGTATTAAAGATGAAATGACTCAAGACTCAGGGCGATACAGGGCTGTGATCT
GCCTTGGATGGATGTTGCTGACACAGATCTACAGACTTGTACTAACACACCGTAATTGGATTGTTAAC
CTCATTTATAAAAGCTTCAAAAAACCCA

FIGURE 14

```
></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA77624
><subunit 1 of 1, 310 aa, 1 stop
><MW: 35020, pI: 7.90, NX(S/T): 3
MALRRPPRRLCARLPDFLLLFRGCLIGAVNLKSSNRTPVVQEFESELSCIITDSQTSD
PRIEWKKIQDEQTTYVFFDNKIQGDLAGRAEILGKTSLIKWNVTRRDSALYRCEVVARNDRK
EIDEIVIELTVQVKPVTPCRVPKAVPGKMATLHCQESEGHPRPHYSWYRNDVPLPTDSRA
NPRFRNSSFHLNSETGTLVFTAHHKDGSQYYCIAASNDAGSARCEEQEMEVYDLNIGGIIGG
VLVVLAVLALITLGICCAYRRGYFINNKQDGESYKNPGKPDGVNYIRTDEEGDFRHKKSSFVI
```

Important features of the protein:

Signal peptide:

amino acids 1-30

Transmembrane domain:

amino acids 243-263

N-glycosylation sites.

amino acids 104-107, 192-195

cAMP- and cGMP-dependent protein kinase phosphorylation site.

amino acids 107-110

Casein kinase II phosphorylation site.

amino acids 106-109, 296-299

Tyrosine kinase phosphorylation site.

amino acids 69-77

N-myristoylation sites.

amino acids 26-31, 215-220, 226-231, 243-248, 244-249, 262-267

FIGURE 15

CAGGACCAGGTCTTCTACGCTGGAGCAGGGGGAGACAGGCCACATGACATCTCGTGGTCATGCCATGGT
ATCCTGCTGACGCTGGCCCGCCTCGAGCCAGCACAGCGAGTTCAGCGCTGCTGGACATCTGGTTCCGGAG
GAGAACCCGACGGCCCTCTGGTGACATCGAGGAGGCTGCTGCTGTTCTCTGACTGCTGAGCTG
CGCATGATCCTTCTGAGGTGCTCCGCGCTGGTGAAGCCGCCCCCTGCAGGACCTGGAGCCGCAAGCAGCTGCTG
TTCTGTCAGCTGTTGGCATCCCGTGTGAGCATGAGCAAACCTCTCCAGTCTGGACAGGAGTGGCCAC
GACCCCGAGACTCTGGAGCAGAACATCATGGACAAGAAATTACATGGCCCACCTGTTGGAGGTCAGCATGAGCC
GGCCTCTGGAGGCCAGACTTCTCATCTTGTCTACAGGCCCTCTGGCCGCCCCGGAGACAGCACAGAGGA
CCAAAACAAAGAGCAGGCCAGAGCACGCCCATAGGCCAGGGGGGATTGGGTGGGACCCAGCTCCGGTGTG
GGCCCTGAGGAGCACCTGGCTGGCATGTTCTCCAGATTTTCCGCTGACGCCGGACCCCTCGGTGGAGAGCTCC
AGTCCCCGCCCGTGGCCCTGGCTGAGCAGGGCCCTGGGAGCTGGCCAGGGCAGCTGGCCAGGGCAGCCCC
GAGGTGCGGGCATCAGGTCGCTGTCTCAGGCCCTCGCAGGCCCTCTGCTCAGCTCCACAGGGGCTGCCCTG
GTGATGTCATGACCGCTGACGGCTCTCTGGCTGCGCCGCTGCTGCCAGTACACGGGCTGTG
CCACAGGACACGGCTCTCTCGCTCTCTGAGGTGCTCTGCAAGGTGCTGCGAGTGGAGCAGCC
GTGAGGGGGGGGGCTCTGCGCTGCGCCAGGGCCCTGGCTTCCGTCAGGACCTGGAGGTGGTCACTCCACCGTC
CGTGGCGTCACTGCCACCCCTGAGGTCTGGGGAGCTGAGCTGAGCTGAGTCACTCCACCGTC
GGGCTGATCAGGAGTGGAGTGGCTCCACCTGGAGGAGCTGCTGAGTCACTCTGCACTCGGGAGTGTCC
TCCCCGTTCTCAGCTGTAAGCCGTTGTGGTGGAGCTCCCTGCTGCTGAGGAGGGAGCCCTGGCTGG
GGGAGCCGGGGTGGAGCCTGGACGGCTGGACGGCTGGGGCTGGCCCTCTGTCAGGCCCTCTGAGTCACTGG
CTGGAATGCTGGACCCAGGGTGTGAGCTGAGCTGCCCCGGACCTGCACTGGAGTGTGCTCTTCCGGAGGA
GGCAAAAGTCAAGGCCAGGTGGCCCTGTTGGCTCCACTCTGACCCCTCTCACTGAGCATCAGTCCAGTGGCCC
ACACTGACCCAGTGCATCCGAGTCTCTGCTGGCAAGAGCCGGAAACAGGGTCTGGAGCCGGACTCTGCCCCTCTGGAC
TTCTCTGGCCCTGATCATCTGGCTTCTCTGGCATCTGGAGGGGGGGAGGACGGCAACCCCGCAGAACGGGGGGAG
GAGCTGGTGTGCGGGTCAAGGGCCGGAGCTCATCAGGCTGGAGCTGATCTGGCCGAGGGAGACGG
AGCCAGGACGGGGTGGAGCAGCAGGCCCTGCAAGCTCATCAGGGGGGGCTGGCCCTCTGCTCAGCTGCTGTGG
GACGATGAGAGTGTAGGAGGAGTGCAGGACGGACCTGTCAGGCTGATCCAGCAGTGGGGAGACAGGGTGTGG
AGGCCTGCGAGACCTTCTCTGAGCTCTACCTACAGGCCGGAGCTGGGGGGCTGGCCCTGCTGAGGTCTA
CTGCAAGCAGGAGGGCTGCGAGCACGAGCTGCAAGCTGAGGAGCTCATCAGCCCTTCTGAGCTCT
GGCGACAGGAGGACTCTGGGGCTTGGAGAACGGAGGGGGGGAGCTGGAGCATGGCTGCGGAAGCTGGGTG
GGCACCCTGCTGCTGCTGAGGACCTGCCCAGTGGAGGGGGGGAGCTGGAGCATGGCTGCGGAGACGG
GAGAGTGGCTGGAGCAGAGCACCTGGAGCTGGGGCTGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
GTGTTCTGGAGGAGCACAGGG
AAAGTCTCTCCGCCATCTGGCTGCTCTCATCAAAAGTTTGTGCAAGTCTCATCCATAAGTACATTACCTACAATGCC
CCAGCAGGCCATCTCTTCTGAGAAGACAGGCCGACCCGGGCTCCAGGACCTGTCAGCAGAACAGTGACCTGGTG
ATGCTGAAATCTCTCTGGAGGAGCTGAGCTGCTGAGGAGGAGGAGCTGGAGGAGGAGGAGGAGGAGGAG
GGCGAGGAGGAGGAGCTAGCCGGCTCTGGCCCTGGTCAAGCTCTCCCTGTCACCCCTGACCGCGGGCGAG
ATGCCCCCTACATGAAACGGCTTTCGGGGGAAACAGGTGAGGAGATCTGTTGGGGGTTCTGAGTGAATAGAC
GAGATGTCGGGGGGAGACGGGAGATCTGAGCTCTCTGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG
GAGTGTGCGCAACCTGCGCTTCACTGGGGAGGCCAGGGACTTGGAGGTGTTGAGCAGGGCCCTCCGGAAACCTGGCT
CTGCCCCAGTGTGCAAGAGCACGGGGCTGTGCTGCTCACGGGGGCTCTGGTGGCATGACAGGCCAGATGG
TACGGTCTCTGTGCAAGAGCACGGGGCTGTGCTGCTCACGGGGGCTCTGGTGGCATGACAGGCCAG
GACCCCGAGCGCGAGATCTGGAGGGGGGGAGGATCTGCAATGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG
CCCCCTCTCAAGGCCGG
TCTGTCGGAGGGAGGTGAGGG
CTCGGG
ACGGGGGGGATCCCCCCCCGGGATGGGCTGGGCTGGGTTGAATGAAACGACCTGAGTCA

FIGURE 16

></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA77631

><subunit 1 of 1, 1029 aa, 1 stop

><MW: 114213, pI: 6.42, NX(S/T): 0

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IRSEVLRVDAALQDLEPQQQLLFLVQSGFIPVSSMSKLLQFLDQAVAHDPTQLEQNIMDKNY
MAHLVEVQHERGASGGQTFSLLTASLPPRRDSTEAPPKSSPEQPIGGQGRIVGTQLRVLG
PEDDLAGMFLQIFPPLSPDPRWQSSSPRPVALALQALQELARVVGSPPEVPGITVRVLQAL
ATLLSSPHGGALVMSMHSRSHFLACPLIROLCQYQRCPQDTGFSSLFLKVLLQMLQWLDSPG
VEGGPLRAQLRMLASQASAGRRLSDVRGGLRLAEALAFRQDLEVSSTVRAVIATLRSGEQ
CSVPEDLIASKVILQGLIEVRSRPHLEELLTAFFSATADAASASPFPACKPVVVVSSLLLQEEPLA
GGKPGADGGSLEAVRLGPSSGLLVWDILEMDPEVVSSCPDLQLRLLFSRKKGKGQAQVPSFR
PYLLTFLTHQSSWPTLHQCIRVLLGKSREREQRFDPASALDFLWACIHVPRIWQGRDQRTPQKR
REELVLRVOGPELISLVELI LAEAETRSQDGDTAACSLIQRALPLLLSCCCGDESVRKVTE
HLSGCIIQQWGDSVLGRRCRDLLLQOLYLQRLPELRLPVPEVLLHSEGAASSSVCKLDGLIHRFI
TLLADTSDSRALENRGADASMACRKLAVAHPLLLLRLHPMIAALLHGRTHLNFEFRQONHL
SCFLHVGLLLELLQPHVFRSEHQGALWDCLLFSIRLLNRYKSSRHLAAFINKFVQFIHKYI
TYNAPAAISFLQKHADPLHDLSDFDNSLDVMLKSLLAGLSQLPSRDRRTDRLGDLDEEGEEESSAG
SPLLVSVSLSLFTPLTAAEMAPYMKRSLRGQTVEDLLEVLSIDEMSSRRPEILSFTSTNLQRL
MSSAAECCRNLAFSLALRSMQNPSPIAAAFLPTFMYCLGSQDFEVVQTALRNLPEAYLLCQE
HAAVLLHRAFLVGMYGGQMDPSAQISEALRLIHMEAVM

Important features:

Signal peptide:

amino acids 1-16

cAMP- and cGMP-dependent protein kinase phosphorylation sites.

amino acids 154-158, 331-335, 616-620, 785-789, 891-895

N-myristoylation sites.

amino acids 91-97, 136-142, 224-230, 435-441, 439-445, 443-449,
665-671, 698-704

Amidation sites.

amino acids 329-333, 634-638

FIGURE 17

CGGGCCATGAGCCTGGCCCCGGGGCGCCCGCGCACCCGAGGAGA**ATGAGGCTCCGC**
AATGGCACCTTCTGACCTGCTGCTCTCTGCGCTTCCTCGCTGTCTGGTA
CGCGCACTCAGCGGCCAGAAAGGCACGTTGAGCAGGAGAGCTCAAGCGCTCCAAGGAGCTAACCTG
TGCGCGATCGTTGACCCAGCTGAGCAGGAGAGCTCAAGCGCTCCAAGGAGCTAACCTG
GTGCTGGACGAGATCAAGAGGGCGCTGTCAGAAAGGCAGGGCGCTGCGAGACGGAGACGGCAA
TCGCACCTGGGGCGCTAACAGGAGGGCCCGATTGAAGCGTGGAAACGGCTCACACCGGGC
ACCTGCTGCACCTGCCAACCGTCTTCATCACCTGCCAACACTGCTGGCCAAGGAGACAGT
CTGCAGCCCGGGTGCCTGGGCCAGGGCGCACCGGAGTGTCTGGTGTATGGGATCCC
GAGCTGCGGCCGAGGTGACTCGTACCTGACTGACACTCTGACTCGCATCTCGAGC
TGAGCCCGCAGGAGAGGAGACTCGCTCATCGTGTGATCGCCGAGACTGACTCACAG
TACACTTCCGGCAGTGACAGAGAACATCAAGGGCTTCTCCACGGAGATCATTCTGGGCT
CCTGGAGGTATCTCACCTCCCCCCTACTTACCTCTGACTTCTCCGCTCCGAGAGTCT
TTGGGGACCCAAGGAGAGTCAAGTGGAGGACAAACAGAACCTCGATTACTGCTTCTC
ATGATGTAACGCCAGTCAAAGGCATCTACTACGTGAGCTGGAGGATGACATCGTGGCAA
GCCCAACTACTGAGCACCATGAGAACATTGCACTGCAAGCAGCCTCAGAGGACTCGATGA
TCCCTGGAGGTTCTCCCAGCTGGGCTTCTGGTAAGATGTTCAAGTCGCTGGACCTGAGCCTG
ATTCTAGAGGTTCTCATGTTCTACCGGGACAAGGGCATCGACTGGCTCTGGACCATAT
TCTGTGGGTGAAAGTCTGCAACCCGAGAAGGATGCGAAGCACTGTGACCGGAGAACGCCA
ACCTGCGGATCGCTTCAACCGTCCCTTCCAGCACGTGGGCACTCACTCTCGTGGCT
GGCAAGATCCAGAAACTGAAGGACAAAGACTTTGGAAAGCAGGGCTGCGGAAGGAGCATGT
GAACCCGCCAGAGGGTGAGCAGGCGCTGAAGACATACCCAGCATTCAACCTGGAGAACAG
CCTACCTGGGGAGGACTTCTCTGGGCTTCAACCCCTGCGCGGGGACTTCATCCGCTTC
CGCTTCTCCAACCTCTAACACTGGAGCGTTCTCTCCCGCAGTGGGAACATCGAGCACCC
GGAGGACAAGCTTCAACCGTCTGTGGAGGTGCTGCCCTTCGACAACCTCAGTCAGACA
AGGAGGGCTCGCAGGGGCCGCACCCCAACCTCCGGTACCTCTGGAGGCCCCAGCGCTAC
CTCCAGATCGGCTCTTCAAAAGGGATGGCAGAGGGAGAGGTGGACCCAGCCTGGGCC
TCTGGAAGGACTGCGCTCTCGATCCAGACGGACTCCCTGTGTGGGTGATTCTGAGCGAGA
TCTTCTGAAAAGGCCACT**TAAG**TGCGGCTTCTGAGGGTACCTGTGGCCAGCCCTGAA
GCCACATTCTGGGGTGTGTCAGTCCGTCACCTGGGAGGGCAGATA CGGCCCCC
AGGGTTCTGCTGGCGTCGGCTTGGGGCGCTGGGTCCGGCTGGCCGGAGGCCCTA
GGAGCTGGTGTGCCCCCGCCGGGGCGGGAGGGAGAGGAGGGCAGGCGGGCCCCACACTGTGCC
TGAGGCCGGAAACCGTTGCAACCGGGCTGCCCTGCGGAGTCAAGGGCTTTAGAAGAGCTTTAC
TTGGGCGCCCGCGTCTGGCGCAACACTGGAATGCAATACTACTTTATGTCTGTGTT
TTTTATTCTGGATACATTGATTTTCACGTAAGTCCACATATACTTCTATAAGAGCGTG
ACTTGTAATAAGGGTAATGAAGAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAA

FIGURE 18

```
></usr/seqdb2/sst/DNA/Dnaseqs.min/ss.DNA82307
><subunit 1 of 1, 548 aa, 1 stop
><MW: 63198, pI: 8.10, NX(S/T): 4
MRLRNGTFLTLLLFCFLCAFLSWSYAAALSGQKGDVVVDVYQREFLALRDRLHAAEQESLKRSK
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KESSLQPAVRVGQGRTGVSVVMGIPSVRREVHSYLTDTLHSLISELSPQEKEDSIVVLLIAE
TDSQYTSAVTENIKALFFTEIHSGLLEVISPSPHYPDFSRLRESFGDPKERVRWRTKQNLDD
YCFLMMYAQSkgIYYYVQLEDDIVAKPNYLSTMKNFALQQPSEDWMILEFSQLGFIGKMFKSL
DLSLIVEFILEMFYRDKPIDWLLDHILWVKVCNPEKDAKHCDRQKANLRIRFKPSLFQHVGTH
SSLAGKIQKLKDQDFGKQALRKHEVNPPAEVSTSLKTYQHFTLEKAYLREDFFWAFTPAAAGD
FIRFRFFQPLRLERFFFSGNIEHPEDKLFNTSVEVLPFDNPQSDKEALQEGRTATLRYPRS
PDGYLQIGSFYKGVAEGEVDPAGPLEALRLSIQTDSPVWVILSEIFLKKAD
```

Important features:

Signal sequence

amino acids 1-23

N-glycosylation sites.

amino acids 5-9, 87-91, 103-107, 465-469

N-myristoylation sites.

amino acids 6-12, 136-142, 370-376, 509-515